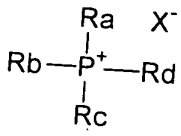
WHAT IS CLAIMED IS:

1. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]



(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

2. An ink for ink jet recording according to claim 1, wherein the counter ion is a hydroxyl ion.

3. An ink for ink jet recording according to claim 1, wherein pH of the ink is within a range of 7 to 10.

4. An ink for ink jet recording according to claim 1, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

5. An ink for ink jet recording according to claim 1, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

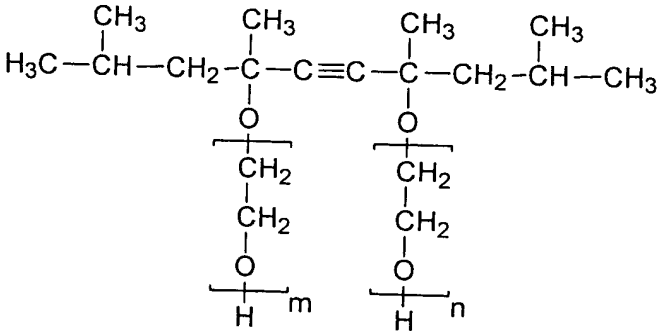
6. An ink for ink jet recording according to claim 1, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

7. An ink for ink jet recording according to claim 1, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon,

a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

8. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

9. An ink for ink jet recording according to claim 8, wherein pH of the ink is within a range of 7 to 10.

10. An ink for ink jet recording according to claim 8, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime

glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

11. An ink for ink jet recording according to claim 8, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

12. An ink for ink jet recording according to claim 8, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

13. An ink for ink jet recording according to claim 8, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

14. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

15. An ink for ink jet recording according to claim 14, wherein the cationic compound is a cationic resin and a cationic surfactant.

16. An ink for ink jet recording according to claim 14, wherein pH of the ink is within a range of 7 to 10.

17. An ink for ink jet recording according to claim 14, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

18. An ink for ink jet recording according to claim 14, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal

silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

19. An ink for ink jet recording according to claim 14, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

20. An ink for ink jet recording according to claim 14, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

21. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

22. An ink for ink jet recording according to claim 21, wherein the cationic coloring material is a cationic dye, a cationic carbon black and a cationic pigment.

23. An ink for ink jet recording according to claim 21, wherein pH of the ink is within a range of 7 to 10.

24. An ink for ink jet recording according to claim 21, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

25. An ink for ink jet recording according to claim 21, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

26. An ink for ink jet recording according to claim 21, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon,

polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

27. An ink for ink jet recording according to claim 21, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

28. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

29. An ink for ink jet recording according to claim 28, wherein the coloring material is a dye and/or a pigment.

30. An ink for ink jet recording according to claim 28, wherein pH of the ink is within a range of 7 to 10.

31. An ink for ink jet recording according to claim 28, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

32. An ink for ink jet recording according to claim 28, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

33. An ink for ink jet recording according to claim 28, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

34. An ink for ink jet recording according to claim 28, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon,

polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

35. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

36. An ink for ink jet recording according to claim 35, wherein pH of the ink is within a range of 7 to 10.

37. An ink for ink jet recording according to claim 35, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

38. An ink for ink jet recording according to claim 35, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

39. An ink for ink jet recording according to claim 35, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

40. An ink for ink jet recording according to claim 35, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

41. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a

silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

42. An ink for ink jet recording according to claim 41, wherein pH of the ink is within a range of 7 to 10.

43. An ink for ink jet recording according to claim 41, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

44. An ink for ink jet recording according to claim 41, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

45. An ink for ink jet recording according to claim 41, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

46. An ink for ink jet recording according to claim 41, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

47. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

48. An ink for ink jet recording according to claim 47, wherein pH of the ink is within a range of 7 to 10.

49. An ink for ink jet recording according to claim 47, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

50. An ink for ink jet recording according to claim 47, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

51. An ink for ink jet recording according to claim 47, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

52. An ink for ink jet recording according to claim 47, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

53. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

54. An ink for ink jet recording according to claim 53, wherein pH of the ink is within a range of 7 to 10.

55. An ink for ink jet recording according to claim 53, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film,

a titanium oxide film, and a silicon nitride film.

56. An ink for ink jet recording according to claim 53, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

57. An ink for ink jet recording according to claim 53, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

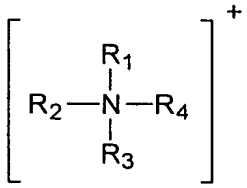
58. An ink for ink jet recording according to claim 53, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

59. An ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

60. An ink for ink jet recording according to claim 59, used for an ink jet printer in which at least a portion of a member being in contact with the ink is further formed by silicon or silicon oxide.

61. An ink for ink jet recording according to claim 59, wherein 30% or more of a quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A described below, based on the equivalent of an anionic compound which is contained in the ink is contained:

[Formula A]



(wherein in the formula A, R1 to R4 represent a hydrogen atom, an alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, and a halogenated alkyl group).

62. An ink for ink jet recording according to claim 59, used for an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

63. An ink for ink jet recording according to claim 59, used for an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

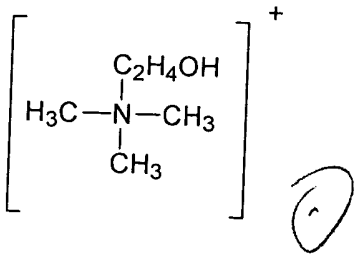
64. An ink for ink jet recording according to claim 59, used for an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

65. An ink for ink jet recording according to claim 59, used for an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon,

polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film.

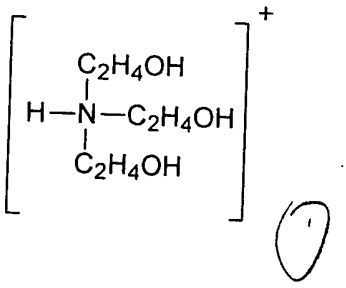
66. An ink for ink jet recording according to claim 61, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is corrin indicated by the formula B described below:

[Formula B]



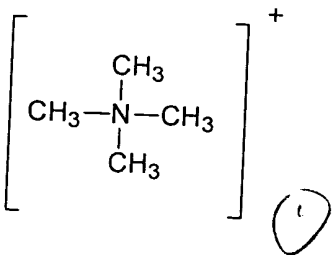
67. An ink for ink jet recording according to claim 61, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is triethanol amine indicated by the formula C described below:

[Formula C]



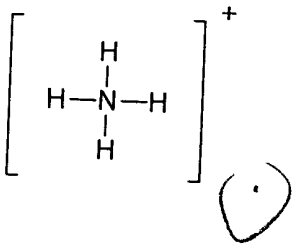
68. An ink for ink jet recording according to claim 61, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is tetramethylammomium indicated by the formula D described below:

[Formula D]



69. An ink for ink jet recording according to claim 61, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is an ammomium ion indicated by the formula E described below:

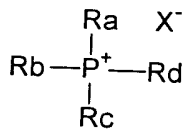
[Formula E]



70. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for

ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]



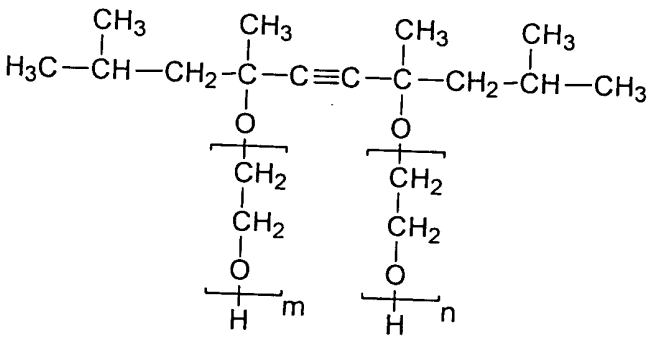
(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

71. An ink jet recording method according to claim 70, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

72. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime

glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

73. An ink jet recording method according to claim 72, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

74. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

75. An ink jet recording method according to claim 74, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

76. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for

ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

77. An ink jet recording method according to claim 76, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

78. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film,

and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

79. An ink jet recording method according to claim 78, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

80. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which

is contained in the ink is contained.

81. An ink jet recording method according to claim 80, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

82. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

83. An ink jet recording method according to claim 82, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

84. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

85. An ink jet recording method according to claim 84, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or

the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

86. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

87. An ink jet recording method according to claim 86, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

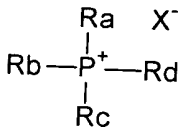
88. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of a liquid chamber member is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

89. An ink jet recording method according to claim 88, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

90. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink

is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]



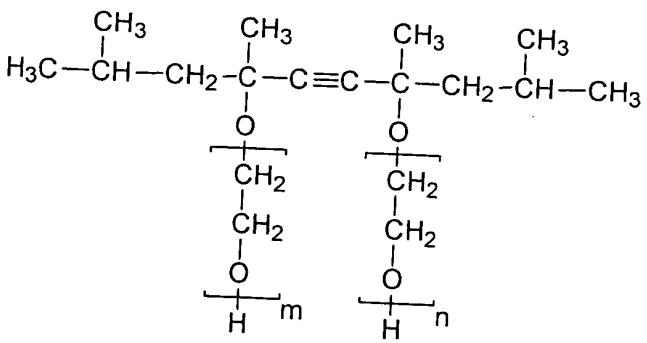
(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

91. An ink jet recording method according to claim 90, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

92. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a

zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

93. An ink jet recording method according to claim 92, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

94. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

95. An ink jet recording method according to claim 94, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

96. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a

zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

97. An ink jet recording method according to claim 96, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

98. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a

silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

99. An ink jet recording method according to claim 98, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

100. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and

30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

101. An ink jet recording method according to claim 100, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

102. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent

of an anionic compound which is contained in the ink is contained.

103. An ink jet recording method according to claim 102, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

104. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

105. An ink jet recording method according to claim 104, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

106. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

107. An ink jet recording method according to claim 106, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or

the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

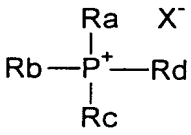
108. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a fluid resistance part is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

109. An ink jet recording method according to claim 108, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

110. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a

zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]

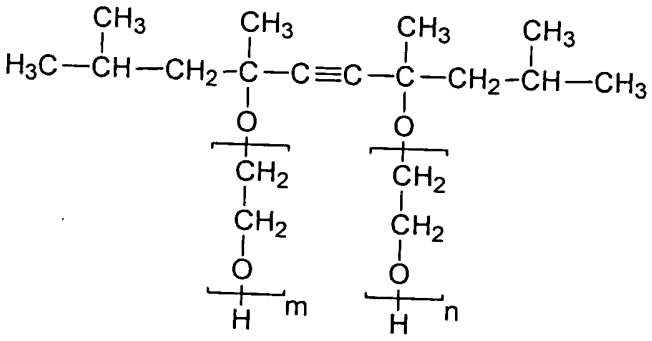


(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

111. An ink jet recording method according to claim 110, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

112. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

113. An ink jet recording method according to claim 112, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or

the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

114. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

115. An ink jet recording method according to claim 114, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

116. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

117. An ink jet recording method according to claim 116, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

118. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a

zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

119. An ink jet recording method according to claim 118, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

120. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink

is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

121. An ink jet recording method according to claim 120, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

122. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a

silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

123. An ink jet recording method according to claim 122, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

124. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total

of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

125. An ink jet recording method according to claim 124, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

126. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

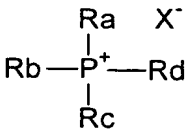
127. An ink jet recording method according to claim 126, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

128. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a vibration plate is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

129. An ink jet recording method according to claim 128, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

130. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]



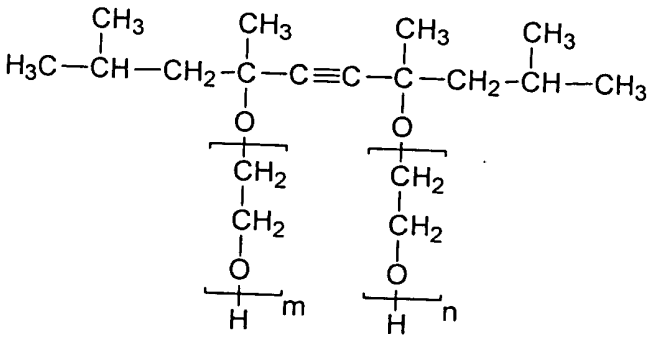
(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

131. An ink jet recording method according to claim 130, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or

the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

132. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

133. An ink jet recording method according to claim 132, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

134. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

135. An ink jet recording method according to claim 134, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

136. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

137. An ink jet recording method according to claim 136, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

138. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film,

a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

139. An ink jet recording method according to claim 138, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

140. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive

glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

141. An ink jet recording method according to claim 140, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

142. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film,

and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

143. An ink jet recording method according to claim 142, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

144. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a

cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

145. An ink jet recording method according to claim 144, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

146. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

147. An ink jet recording method according to claim 146, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

148. An ink jet recording method carrying out recording using an ink jet printer in which at least a portion of the member of a nozzle is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, and the ink for ink jet recording used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

149. An ink jet recording method according to claim 148, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

150. An ink jet recording method using an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, and the ink for ink jet recording in which the total of the content of alkali metals in the ink is 700ppm or less.

151. An ink jet recording method according to claim 150, using an ink jet printer in which at least a portion of a member being in contact with the ink is further formed by silicon or silicon oxide.

152. An ink jet recording method according to claim 150, wherein 30% or more of a quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A based on the equivalent of an anionic compound which is contained in the ink is contained.

153. An ink jet recording method according to claim 152, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is corrin indicated by the formula B.

154. An ink jet recording method according to claim 152, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is triethanol amine indicated by the formula C.

155. An ink jet recording method according to claim 152, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is tetramethylammomium indicated by the formula D.

156. An ink jet recording method according to claim 152, wherein at least a portion of the quaternary ammonium ion and an alkanolamino ion which are indicated by the formula A is an ammomium ion indicated by the formula E.

157. An ink jet recording method according to claim 150, using an ink jet printer in which the liquid chamber member composed of a glass or single crystal silicon.

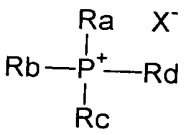
158. An ink jet recording method according to claim 150, using an ink jet printer in which the fluid resistance is composed of a glass or single crystal silicon.

159. An ink jet recording method according to claim 150, using an ink jet printer in which the vibration plate is composed of a glass or single crystal silicon.

160. An ink jet recording method according to claim 150, using an ink jet printer in which the nozzle is composed of a glass or single crystal silicon.

161. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]

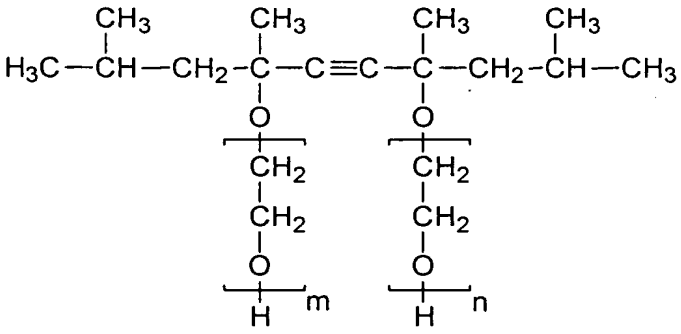


(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

162. An ink jet recording method according to claim 161, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

163. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

164. An ink jet recording method according to claim 163, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

165. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

166. An ink jet recording method according to claim 165, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

167. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

168. An ink jet recording method according to claim 167, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

169. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

170. An ink jet recording method according to claim 169, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

171. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

172. An ink jet recording method according to claim 171, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

173. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a

silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

174. An ink jet recording method according to claim 173, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

175. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

176. An ink jet recording method according to claim 175, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

177. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

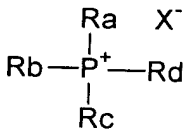
178. An ink jet recording method according to claim 177, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

179. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

180. An ink jet recording method according to claim 179, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

181. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]

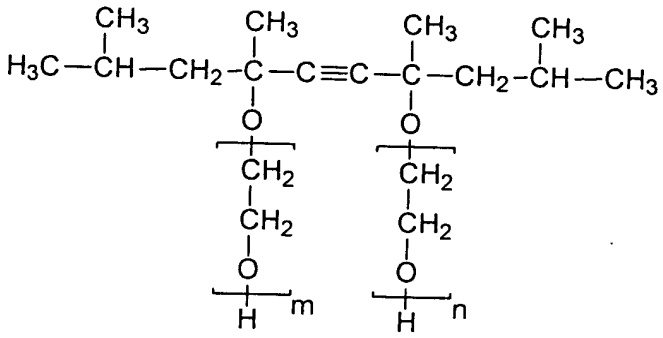


(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

182. An ink jet recording method according to claim 181, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

183. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

184. An ink jet recording method according to claim 183, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

185. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

186. An ink jet recording method according to claim 185, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

187. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

188. An ink jet recording method according to claim 187, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

189. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

190. An ink jet recording method according to claim 189, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

191. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a

photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

192. An ink jet recording method according to claim 191, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

193. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of an acetylene compound represented by the

above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

194. An ink jet recording method according to claim 193, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

195. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

196. An ink jet recording method according to claim 195, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or

the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

197. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

198. An ink jet recording method according to claim 197, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

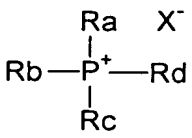
199. A recording liquid cartridge equipped with a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording

liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

200. An ink jet recording method according to claim 199, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

201. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a corrosion inhibitor is contained, and a phosphonium ion represented by the general formula (Formula 1) described below is contained:

[Formula 1]

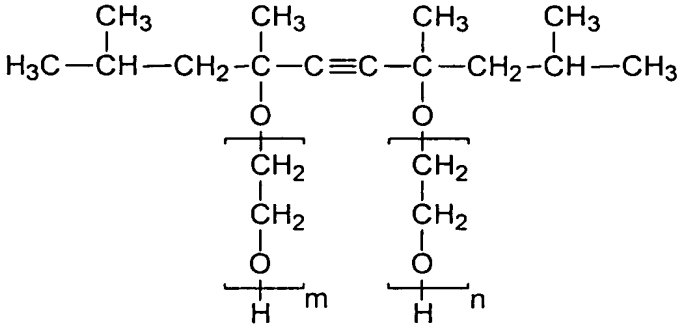


(wherein in Formula 1, Ra, Rb, Rc and Rd represent a linear, branched, or cyclic alkyl group having 1 to 4 carbon atoms, a hydroxyalkyl group, a halogenated alkyl group and a substituted or non-substituted phenyl group, and X^- represents a counter ion).

202. An ink jet recording method according to claim 201, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

203. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein an acetylene compound represented by the general formula (Formula 2) described below is contained:

[Formula 2]



(wherein in the formula, m and n represent an integer of 0 to 20).

204. An ink jet recording method according to claim 203, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

205. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic compound is contained.

206. An ink jet recording method according to claim 205, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

207. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a cationic coloring material is contained.

208. An ink jet recording method according to claim 207, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

209. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein a coloring material that is an inclusion compound included by a resin or a colored resin fine particle colored with a coloring material is contained.

210. An ink jet recording method according to claim 209, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

211. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate

glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a phosphonium ion represented by the above-mentioned general formula (Formula 1) based on the equivalent of an anionic compound which is contained in the ink is contained.

212. An ink jet recording method according to claim 211, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

213. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is

700ppm or less, and 30% or more of an acetylene compound represented by the above-mentioned general formula (Formula 2) based on the equivalent of an anionic compound which is contained in the ink is contained.

214. An ink jet recording method according to claim 213, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

215. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic compound based on the equivalent of an anionic compound which is contained in the ink is contained.

216. An ink jet recording method according to claim 215, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

217. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by any one of a borosilicate glass, a soda lime glass, a photosensitive glass, single crystal silicon, polysilicon, a silicon oxide film, a titanium nitride film, a zirconium film, a titanium oxide film, and a silicon nitride film, wherein the total of the content of alkali metals in the ink is 700ppm or less, and 30% or more of a cationic coloring material based on the equivalent of an anionic compound which is contained in the ink is contained.

218. An ink jet recording method according to claim 217, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.

219. An inkjet recording apparatus equipped with a recording liquid cartridge having a recording liquid storing part which stores a recording liquid, and a head part for discharging the drops of recording liquid, wherein the recording liquid is a recording liquid used for an ink jet printer in which at least a portion of a member being in contact with the ink is formed by a glass, wherein the total of the content of alkali metals in the ink is 700ppm or less.

220. An ink jet recording method according to claim 219, using an ink jet printer in which a groove is formed by treating the liquid chamber member, the fluid resistance part, the vibration plate or the nozzle by an etching treatment, a sandblast treatment, an excimer laser processing or drilling.